



## PROJECT SUMMARY

Ecosystem  
Management

Forest Productivity

Public Involvement

Adaptive  
Management

Developing and implementing a Sustainable Forest Management Plan for both the Lakes and Morice Timber Supply Areas is the central objective of the Morice and Lakes Innovative Forest Practices Agreement. The adaptive management cycle and public involvement are both important components of this planning process.

### Northern Data Sharing Network Phase 2 Task 1: Local Data Administration

#### Introduction

The Morice & Lakes Innovative Forest Practices Agreement (M&L IFPA) aims to develop and implement a Sustainable Forest Management (SFM) plan for two Timber Supply Areas: the Morice TSA, near Houston, and the Lakes TSA, near Burns Lake. In support of the SFM plan, a spatial or mapping data sharing network (DSN) is being established to maintain data needed for landscape level resource management planning and monitoring.

A data sharing network requires administration and co-ordination. Task 1 of this project, therefore, has been to provide these services on behalf of the M&L IFPA stakeholders.

This work was carried out in February and March, 2003. A *Task 1* final report was prepared, which presents the outcomes of each of the administrative tasks. As demonstrated in the report, there is still room for more 'buy-in' among stakeholders to the DSN concept. With *Task 2: Data Modeling* and *Task 3: Mapping Application Development* set to launch in April 2003, however, we expect that stakeholders will start to see the benefits of the DSN in terms of increased consistency and efficiency in data management, and a reduced incidence of doubling of efforts in mapping and analysis.

#### Objectives

The objective of *Task 1: Local Data Administration* was to identify, collect, and record local information. More specifically, this project aimed to:

1. Identify and collect relevant data layers from stakeholders.
2. Interpret and implement the Ministry of Sustainable Resource Management (MSRM) metadata strategy in the context of the DSN.
3. Identify and document data management contacts within the stakeholder organizations.
4. Identify, document, and attempt to resolve spatial data overlaps.
5. Document the logical and physical data models employed by the stakeholder organizations.
6. Assign custodial roles that provide the 'best fit' in the context of this project using the MSRM Data Custodianship Guidelines.



Fraser Lake Sawmills



## Methods

As with any project that requires the co-ordination of, and input from, many stakeholders, the methods employed in *Task 1* involved hundreds of telephone calls, e-mails, and meetings. In short, this phase of the DSN project was an exercise in communication, patience, and exhaustive documentation.

Stakeholders were provided with a list of layers that would be required, as a minimum, to meet the objectives of the SFM plan, and a template outlining the metadata that would be required to meet the MSRM metadata standard. Having collected and compiled data, extensive reviews of the data themselves were conducted. Reviews included visual inspections for spatial overlaps, and discussions with stakeholders of the logical and physical data models used. These were in turn documented.

The implementation of the metadata strategy and the development of custodial roles required an informed review of MSRM guidelines and, in discussion with stakeholders, the identification and adoption of the most appropriate solutions.

## Results

The results of the activities undertaken to meet the six objectives of *Task 1* are discussed below.

### 1. Identify and collect relevant data layers from stakeholders

RESULT: A total of 68 data layers were identified for inclusion in the data sharing network. These layers included:

- future blocks, roads, and proposed activities required for SFM planning;
- existing local blocks, roads, and activities required for SFM monitoring;
- existing local hydrology and fish habitat and inventory status required for SFM planning;
- DFAM boundaries;
- SFM harvest schedules;
- forest health mountain pine beetle risk rating, spruce bark beetle risk rating;
- forest health overview, ground probe, and treatment data for SFM monitoring;
- local 1:20,000 BEC; and
- 58 other local and/or corporate data layers identified by the stakeholders as required for SFM planning.

### 2. Interpret and implement the MSRM metadata strategy in the context of the Data Sharing Network

RESULT: In discussions with the stakeholders, several limiting characteristics of the MSRM metadata MS-Word template were identified, and a decision was made to adopt a US Federal Geographic Data Committee (FGDC)-compliant tool to compile and store the 44 required metadata elements. FGDC elements were cross-referenced with MSRM elements and ISO standards, and the resulting metadata model was documented.

### 3. Identify and document data management contacts within the stakeholder organizations

RESULT: Primary spatial data management contact persons for each stakeholder organization were identified and documented.

### 4. Identify, document, and attempt to resolve spatial data overlaps

RESULT: Spatial data overlaps between the block, road, and hydrology layers provided by individual stakeholders were identified and documented in this stage of the project. Due to time constraints, the overlaps were not resolved, although the methods required to resolve them were identified.

### 5. Document the logical and physical data models employed by the stakeholder organizations

RESULT: The key points describing the data management approach followed by each of the stakeholder organizations were identified through discussions with the stakeholders, and documented. The information fell under these headings: key points in data management philosophy, file storage, relational database, software used for spatial data management, and DSN comments.

### 6. Using the interim MSRM Data Custodianship Guidelines, assign custodial roles that provide the 'best fit' in the context of this project

RESULT: For the purposes of the DSN, the 'data user' role was assigned to all non-government stakeholders, based on a comprehensive list of possible tasks that a data user may wish to perform. MSRM itself was assigned the 'custodian' role. The specific tasks, rights, and obligations of those in each role, as defined in the interim MSRM guidelines, were documented in detail.

## Discussion

The data collection and stakeholder coordination for this project was challenging. Most of the stakeholders have a keen interest in completing the project, but clearly need to give it a higher priority in their day-to-day operations in order for the Data Sharing Network to succeed. Any difficulties in the execution of *Task 1* demonstrate the need for a project such as the data sharing network.

Coordination, meetings and communication are needed in the future to maintain, or better yet, build on the momentum of this project. In retrospect, some type of ramp-up workshop or series of meetings held months before the project execution would have helped to obtain data and metadata in a timely manner. In the future a monthly DSN newsletter publication may help to coordinate stakeholders. One stakeholder suggested business experts as well as technical experts attend regular meetings to provide input on topics such as forest health. Including business experts would provide the technical experts with a better understanding of the data needs in areas such as forest health.

Clearly, local data administration has only just begun with the completion of *Task 1*. Work will continue in April 2003 on the technical components of this project, including the development of data standards and schemas, and infrastructure for data security, viewing and exchange. In the meantime, however, and as in any co-operative effort, stakeholders will be required to coordinate and administer their own participation in the project in order to capitalize on the efficiencies that the DSN can bring to their business operations. Efforts such as the DSN can help stakeholders share the management and maintenance of data layers, and further the broader goal of data convergence.

## References

Ministry of Sustainable Resource Management Metadata Strategy:  
<http://srmwww.gov.bc.ca/tib/fia/shareddata.htm>.

Ministry of Sustainable Resource Management Interim Data  
Custodianship Guidelines: <http://srmwww.gov.bc.ca/imb/3star/data/index.html>.

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For More  
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